BRUHAT BENGALORU MAHANAGARA PALIKE

Name of Work : Detailed Estimate for Providing CC Camera and Improvements to Solid Waste Management Ward No -11 Kuvempunagara.

H/A : P 3298 14th Finance Commission Works -SWM Works

Job Code : 011-19-000009	*Est. Cost Rs. 15.00 Lakhs*
Job Code : 011-19-000094	*Est. Cost Rs. 22.50 Lakhs*
	Total Cost Rs.37.50 Lakhs

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
1	KSRB 2-1.1 : Earthwork in surface excavation in ordinary soil for levelling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications. specification. No. KBS 2.1 (a) / 2.3.1 (P.265/I.37.51 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Cum							
			2	20.00	10.00	0.60	240.00		
			2	15.00	4.00	0.60	72.00		
			1	18.00	8.00	0.60	86.40		
			1	12.00	7.00	0.60	50.40		
							448.80	263.94	**118456.00**
	Basic Rate	249.00							
	Add Area Weightage 6%	14.94							
	Total	263.94							
2	KSRB 4-1.3: Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (P.13/I.4.3 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Cum							
	Flagging Concrete Work	Cum							
			2	20.00	10.00	0.15	60.00		
			2	15.00	4.00	0.15	18.00		
			1	18.00	8.00	0.15	21.60		
			1	12.00	7.00	0.15	12.60		
							112.20	5408.12	**606791.00**
	Basic Rate	5102.00							
	Add Area Weightage 6%	306.12							
	Total	5408.12							

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
3	KSRRB M600-6. Cement concrete pavement. Construction Un- reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with 43 grade cement or any other type as per clause 1051 .2.2 M30 at 450 Kg per cum, coarse and fine aggregate conforming to IS : 383, maximum size of coarse aggregate not exceeding 25mm, mixed in a concrete mixer of not less than 0.6cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved curing compound, finishing to lines and grades as per drawing complete as specifications. (P.161/I.22.6.1 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Cum							
	Flagging Concrete Work								
			2	20.00	10.00	0.15	60.00		
			2	15.00	4.00	0.15	18.00		
			1	18.00	8.00	0.15	21.60		
			1	12.00	7.00	0.15	12.60		
							112.20	5210.96	**584670.00**
	Basic Rate	4916.00							
	Add Area Weightage 6%	294.96							
	Total	5210.96							
4	Vaccum de-Watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power, blade and disc etc,. with all lead and lift. (P.176/ I.22.7 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Sqm							
	Flagging Concrete Work								
			2	20.00	10.00		400.00		
			2	15.00	4.00		120.00		
			1	18.00	8.00		144.00		
			1	12.00	7.00		84.00		
							748.00	72.08	**53916.00**
	Basic Rate	68.00							
	Add Area Weightage 6%	4.08							
	Total	72.08							

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
5	Providing and fixing M.S. Grill over existing compound wall as per Chief Architect drawing No. 12686, using 16mm x 16mm M.S. Square rod at 150mm c/c spacing and 6mm x 40mm M.S. flats at horizontal and 6mm x12mm M.S. flat for ornamental design and providing shop edge design at the vertex of every vertical rods, including welding, grinding wherever necessary. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, etc., complete as per specification. (P.44 /I. 7.36 (P.176/ I.22.7 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Sqm							
	On Compound Wall		2	20.00		0.75	30.00		
			2	18.00		0.75	27.00		
							57.00		
	Deduction Gate		4	3.00		0.75	9.00		
	Basic Rate	5369.00					**48.00**	5798.52	**278329.00**
	Add Area Weightage 8%	429.52							
	Total	5798.52							
6	Providing and fixing M.S. Gate as per Chief Architect Drawing, using 50mm x 50mm 14 guage M.S. hollow pipe frame work bent to ornamental shape as shown in the drawing and 35mm x 6mm and 16 x 16mm Square rods for verticals alternatively spaced at 4cms c/c in two halves and 40mmx6mm M.S. flats for horizontal member and at the top cast iron spikes are provided at alternate vertical members as shown in the drawing etc., complete. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, with lead and lift, loading and unloading charges, etc., complete as per specification. (P.42/I. 7.37 (P.45 / I.7.37 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Sqm							
	For Gate Portion		4	3.00		2.00	**24.00**	3252.96	**78071.00**
	Basic Rate	3012.00							
	Add Area Weightage 8%	240.96							
	Total	3252.96							

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
7	Fabricating, supplying & erecting M.S. angular Truss The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S angle and welding wherever necessary, and applying one coat of red oxide primer coat to all the members including cost of all materials, labour charges, & hire charges of machineries for cutting, welding, grinding & erection equipments, etc., complete as per specification (P.46/I.7.30 (P.43 / I. 7.30 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Kgs							
			6	12.00		0.60	43.20		
			6	11.00		0.60	39.60		
							82.80		
	Basic Rate	128.00					**1738.80**	138.24	**240372.00**
	Add Area Weightage 8%	10.24							
	Total	138.24							
8	Providing and installing of pre painted Galvolume iron Trapezoidal profiled sheet of approved make 1060 mm width (1000 mm cover width), 28-30 mm crest height with crest distance of 200 mm c/c with 2 ribs at the centre for stiffening. The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0.02 mm tolerance Zinc-Alu Alloy coating AZ150 gsm as per ASTM 1397/A755-550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using seif drilling/self tapping screws of 25 mm length, to be fixed over the existing purlins, rafters, channels and trusses. (P.299 / I.38.30 (P.176/ I.22.7 PW, P & IWTD, BENGALURU CIRCLE - SR 2018-19)	Sqm							
			2	20.00	6.00		240.00		
			2	15.00	5.00		150.00		
	Basic Rate	688.00					**390.00**	743.04	**289786.00**
	Add Area Weightage 8%	55.04							
	Total	743.04							
9	Disposal of debries to the final place of disposal with all lead and lift and as direction by the engineer in charge of the work, lead 20 Km a) Basic rate for haulage of materials as per item No. 17.4/KSRRB : M100-4.1 ..... Rs. 2.00 Tonne/Km b) Average earth of work 1.28 Tonne/Km for Rs. 2.00/Km c) Add loading and unloading Item No. 17.1 KSRRB M 100-1 Rs. 68.00 (P.140 I.18.57/1)	Cum							
			Qty Vide Item No.1				***448.80***	*132.00*	***59242.00***
	Lead Up to 20 x 2.5x 1.28 KM	64.00							
	Loading and Unloading Charges	68.00							
		132.00							

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	For Electrical Works								
10	Supplying and wiring adopting loop system in existing PVC Conduit/casing capping using copper PVC insulated multi strand 2x1.5 Sq mm copper wire with a 6 Amps flush type SP control switch shall be fixed on the existing plastic sheet gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block complete for each outlet. (P.5/I.2.1 PWD,ELE -SR 2014-15)	Point							
a	Short point-up to 3 Mtrs from tapping point to out let via switch.								
			10				**10**	174.00	**1740.00**
b	Medium point above 3 Mtrs up to 6 Mtrs from tapping point to out let via switch								
			10				**10**	245.00	**2450.00**
11	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal / PVC box.(P.16/I.3.6.4PWD,ELE -SR 2014-15)	No							
	8 Module		10				**10**	200.00	**2000.00**
12	Supplying 6A flush/projected type socket and 6 amps flush/projected type SP switch either surface/flush mounting in a existing gang box or in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required. 6 Amps 2 Way (P.15/I.3.1.1 PWD,ELE -SR 2014-15)	No							
			10				**10**	127.00	**1270.00**
13	Supplying and flush mounting powder coated metal box suitable for mounting modular switch plates. The box should be firmly flush mounted after due groove cutting in Brick/Stone/C.C wall (P.16/I.3.5.6 PWD,ELE -SR 2014-15)	No							
	16 Way		10				**10**	172.00	**1720.00**
14	Supplying 4mm thick plastic sheet with necessary nitches for fixing switches regulators etc., and fixing on existing wooden or metal box using N.F. screws. (P.17/I.3.10 PWD,ELE -SR 2014-15)	Sqcm							
			30000.00				**30000.00**	0.22	**6600.00**

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	Supplying heavy gauge PVC conduit pipe 20mm dia confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or rawl plugs in case of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.(P.2/I.1.1.1 PWD,ELE -SR 2014-15)	Rmtr							
			10	10.00			**100.00**	54.00	**5400.00**
15	Supplying and fixing of PVC casing and capping on the wall or ceiling using necessary materials like bends, screws at an interval of 300mm .... etc. as required.. (P.3 /I.1.8.5 PWD,ELE -SR 2014-15)	Rmtr							
			10	10.00			**100.00**	54.00	**5400.00**
16	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit..... The pit should be filled with equal proportion of salt and charcoal 150 mm alround the pipe to complete depth. The connection from the pipe to the conduit etc, is to be established through GI wire of size as per IS1 specification 7.33 of IS 732 using 12 mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 122 mm dia.(P.55/I.7.1PWD,ELE -SR 2014-15)	Each							
			2				**2**	2727.00	**5454.00**
17	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers etc., complete. 32 AMPS (P.45/I.6.7.2 PWD,ELE -SR 2014-15)	Each							
			4				**4**	180.00	**720.00**
18	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF,energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required. (P.47/I.6.16.1 PWD,ELE -SR 2014-15)	Each							
	5-32 Amps		8				**8**	418.00	**3344.00**
19	Supply and fixing of bakelite D.P/ Socket/ switch with / without neon indicator over existing wood board or flush mounting in plastic plates/nitches. 16 Amps Combined switch and socket with indication (P.15/I.3.3.4PWD,ELE-SR 2014-15)	Each							
			4				**4**	194.00	**776.00**

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	Supplying and fixing PBBC brass/Bakelite straight or slant batten holder and wiring, within 60W/230 Volts lamps. (P.20/I.4.2 PWD,ELE -SR 2014-15)	Nos							
			4				4	88.00	352.00
21	Supply of... LED recessed luminaire with .....Watts system wattage. Housing shall be with pressure die cast aluminum alloy with corrosion proof resistant polyester power coated. Driver operates with voltage range from 100V to 270V 50/60 Hz with short circuit, overload & mis-wiring protection. Lumen Maintenance of 70% at 50000 Hrs. Injection moulded poly carbonate diffuser for better mechanical stability, light transmission & avoid pot hole effect. Junction temperature shall be < 70 degree Celsius. Driver is on constant current driver @ 0.06A with PF > 0.92 with line voltage @ 220-240V @ 50/60Hz, driver efficiency > 85% & THD<15%. LED Efficiency > 130 lm/W at 1W & Fixture Efficiency >75lm/w with CRI > 75 with injection moulded Polycarbonate lens with < 80mm depth. 5 years Warranty against any manufacturing defect working under standard electrical condition. (P.26/I.4.33.3 PWD,ELE -SR 2014-15)	Each							
a	**LED modular down light 1'x1'-36 watts**		21				21	7006.00	147126.00
22	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws. (P.44/I.17.8 PWD,ELE -SR 2014-15)	Each							
c	20"x20"x2.5"		8				8	302.00	2416.00
23	Supplying and fixing surface/flush mounting unbreakable PVC modular box suitable for mounting modular switch plates with due groove cutting in Brick/C.C wall, including necessary rawl plugs, Machine/NF screws etc., complete.(P.15 / I.3.4.4 PWD,ELE -SR 2014-15)	Each							
			8				8	152.00	1216.00

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	Wiring for lighting / power circute using one of PVC insulated 1100v/grade multies and copper conductor single core cable in open or consealed system of wiring A Group materials 4.00 Sqmm materials P.6/I.2.5.4 PWD,ELE -SR 2014-15)	Rmtr							
			10	10.00			**100.00**	42.10	**4210.00**
25	Wiring for lighting / power circute using one of PVC insulated 1100v/grade multies and copper conductor single core cable in open or consealed system of wiring A Group materials 2.50 Sqmm materials (P.6/I.2.5.3 PWD,ELE -SR 2014-15)	Rmtr							
			10	10.00			**100.00**	29.20	**2920.00**
26	Supplying capacitor type ceiling fan complete with down rod blades, shakle, regulator canopies etc., for operation on 230 volts, 50 cycles. Single phase AC supply conforming to ISS-374-1979 and with double ball bearing system and as per technical data approved (Almanord, Unique ISI, Anchor, Crompton, Khaitan, Bajaj, Usha, Johnson make) (P.78/I.9.3.1.1 PWD,ELE -SR 2014-15)	Nos							
			4				**4**	2376.00	**9504.00**
27	Fixing a ceiling / Wall mounting fan of all capacities and all types with necessary clamps and 'S' hook made out of 15mm dia MS rod, with 5 amps, Ceiling rose of approved quality with necessary length of 23 / 0.0076 inch PVC insulated twin twisted wire of approved quality, mounted on a suitable size wooden board and wired. (P 109/I.17.9 ELE-SR 2014-15)	Each							
			4				**4**	237.00	**948.00**
28	Digging to **trench** of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete. (As per Civil SR KSRB I-2, P-7) (P 61/I.7.9 ELE-SR 2014-15)	Mtr							
	For UG Cable		2	100.00			**200.00**	106.00	**21200.00**
29	Supplying and fixing of **class A (medium duty) GI pipe** of wall thickness not less than 3.25mm on pole/ wall / drain crossing with necessary clamping arrangements for UG cable of 1.1KV. (P 62/I.7.12.2 ELE-SR 2014-15)	Mtr							
	50mm dia		2	100.00			**200.00**	391.00	**78200.00**

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	Supplying of **1.1 KV LT UG cable** having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2Cx 10Sq.mm wire armoured) confirming to IS-3975-1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to **GTP of GROUP -A.** (P 55/I.7.4 ELE-SR 2014-15)	Mtr							
	4 core 16 sqmm		2	100.00			**200.00**	140.40	**28080.00**
31	Supply and Installation / Fixing / Provision of **Outdoor type Thermoplastic Modular Panel** enclosure with transparent Polycarbonate Lid, shock proof IP65 (Weather Proof) rust proof, dust proof, water proof, corrosion proof having Internally Embedded gasket on both lid and flap suitable to fix Single Phase / Three Phase Energy Meter in suitable base plate and having a provision for Fuse / MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete tamper proof SEALING facility (P 50/I.6.42 ELE-SR 2014-15)	Set							
	600mm x 600mm x 170mm		2				**2**	13728.00	**27456.00**
32	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz, AC Supply complete.(P 78/I.9.2 ELE-SR 2014-15)								
	12" Sweep (300mm)	Each	10				**10**	3654.00	**36540.00**
33	Fixing one exhaust fan after making a suitable nitch in the wall and finishing with cement mortar and colouring to match the existing wall or brackets, with bolts and nuts and a 5 amps, ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire of approved make with wire mesh and wooden frame. (P 109/I.17.11 ELE-SR 2014-15)	Each							
	12" Sweep (300mm)		10				**10**	680.00	**6800.00**
34	Supplying and fixing PVC/metal conduit Deep Junction box(P.2 & 3 /I.1.5 ELE-SR 2014-15)								
	c) 32mm deep junction box	Each	20				**20**	65.00	**1300.00**
35	Extra for supplying 4mm thick white plastic plate and covering for junction boxes of size 32mm conduit using necessary machine screws. (P.17 /I.3.11.2 ELE-SR 2014-15)								
	c) 32mm deep junction box	Each	20				**20**	11.00	**220.00**

	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	Supplying Installation and **Fixing of 360 degree rotating CC Camera** Including Wiring ,MS Pole, Materials and Accessories as Per the directions Engineering Inchage of the Work. (MARKET RATE)								
		Each	4				4	150000.00	600000.00
					SUB - TOTAL AMOUNT RS.				3314995.00
37	G.S.T Charges (12%)								397799.40
38	PMC and Third Party Inspection Charges (1%)								33149.95
39	Miscellaneous,TenderPremium Charges and Unforeseen Charges	Ls							4055.65
					TOTAL AMOUNT RS.				3750000.00
(Rupees Thirty Seven Lakh Fifty Thousand Only)									

CERTIFICATE :

1 The work spot has been inspected and found to be necessary.
2 The work spot comes under BBMP Limits.
3 The provisions made in the estimate are necessary and minimum.
4 The estimate is based on PWD ELE SR 2014-15 ,& PW, P & IWTD, BENGALURU CIRCLE - SR 2018 -19.

Assistant Engineer
Project

Assistant Executive Engineer
Project Division
Yelhanka Zone
BBMP Bangalore

Executive Engineer
Project Division
Yelhankha Zone
BBMP Bangalore
12/2/19

Administrative Approval

Accorded For Rs.37.50Lakhs only
Head of A/C P-3298
CER NO :254 Dt:11/01/19

TA CE (YNK)

Technical Sanction

Accorde Rs 37,50,000/- only
Head of P 3298
CER NO 254 Dt:11/01/19

TA CE (YNK)